Hermit Warbler found its way to the National Museum. (Proc. Cooper Orn. Club, *Nidologist* IV, p. 3).

In June, 1897, Mr. Beck was called from his camp in the Sierras to San Francisco where he became a member of the Frank B. Webster expedition under command of C. M. Harris and spent seven months collecting in the Galapagos Archipelago. The expedition brought back much new and valuable material which went into the Rothschild collection in London. Mr. Beck was honored in having a species of *Certhidea* named after him. It was from this expedition that the Giant Tortoise shown in the plate was secured.

Mr. Beck has made two collecting trips to Santa Cruz Island and others of the channel group where he secured considerable material of special interest, among them being specimens of the Island Shrike from which the type was described by Dr. Edgar A. Mearns in the *Auk* for July, 1898, as *Lanius ludovicianus anthonyi*. He also took the first recorded nests and eggs of the Santa Cruz Jay on Santa Cruz Island, from all of which work one may judge of the extreme energy of Mr. Beck as a field worker. His skill as a sportsman is not less pronounced than his careful work in ornithology, and he is withal a true naturalist, a lover of the rod, gun and camera, possessed of a keen perception of art in nature and a modesty for the value of his scientific work. Mr. Beck's collecting grounds cover a rugged country but yield several sets of Golden Eagle each year, due more to tireless energy than good fortune. As a member of the Cooper Club since 1894 Mr. Beck has held the offices of president and vice president and contributed to the advancement of the Club.

The plate herewith given represents Mr. Beck mounting his Giant Tortoise from the Galapagos Islands. The tortoise lived for almost a year after its arrival at Berryessa and seemed to thrive upon a diet of cactus and would in all probability have lived many years to enjoy the salubrious climate of the Santa Clara Valley had it not on an evil evening forgotten to draw in its head! A frost came, the tortoise was nipped in the bud, and we present the very natural picture of Mr. Beck putting the finishing touches to a really excellent pose of the tortoise. C. B.

The Genus Junco in California.

BY HENRY B. KAEDING, TAYLORSVILLE, CAL.

[Read before the Northern Division of the Cooper Orn. Club, July 1 1899.]

THE State of California may be roughly divided into three sections, each having its characteristic climate and subsequent peculiarities in flora and fauna, and to the ornithologist it is particularly interesting to note the influence that these climatic conditions bring to bear upon the avifauna of the state.

The first of these sections is the Coast Range Mts. from the vicinity of Monterey, northward. Here we have a cool, moist region, of no great altitude, subject to sea breezes and fogs. The birds of this section show distinct traces of northern characteristics, as for instance, *Cyanocitta stelleri*, *Bubo virginianus saturatus*, *Oreortyx pictus*, etc. While of course at the southern end of this area some of the forms merge into their southern races and hence are intermediate in form, as one moves north along the coast, the races become more distinct until the pronounced forms of the northern states are reached. It is in this strip of coast and nowhere else that typical *Chamæa fasciata* is found, and it is only in the northern part of this section that anything approaching *Junco hyemalis oregonus* may be found breeding.

The second section may be called the "low-lands" and comprises the broad valleys of the Sacramento and San Joaquin rivers, with their adjacent rolling and foot-hill country. Here will be found the birds loving a hot, comparatively dry atmosphere—a profusion of blackbirds, meadowlarks, Black-headed Grosbeaks, etc. These birds reach their greatest abundance in this region, although they spread more or loss plentifully all over the state.

Lastly and the most distinct of any,

we have the great "Snowy Mountains," —Los Sierra Nevada, extending almost the entire length of the state along its eastern border. These form a continuous chain, rearing their heads to a height of from 9,000 to 11,000 feet above the sea level with their bases on the west resting in the broad California valleys, and with passes over their summit ranging from 5,000 to 10,000 feet in altitude. The pass of the Southern Pacific Railroad at Truckee is low in comparison to some others, Sonora Pass in Tuolumne county being 0,500 ft. high. In this great section of California we encounter an avifauna different from the rest of the state. Here is the home of *Oreortyx pictus plumiferus*, of *Contopus borealis*, of *Passerella iliaca megarhyncha*, of *Zonotrichia leucophrys*, of *Junco hyemalis thurberi* and of a score of others which breed on the slopes of these mountains and migrate westward into the valleys in winter. This western migration is, with many species, the only migration, while with others, such as the various *Empidonaces*, *Tachycineta* and others a southerly migration takes place after the valleys are reached in the fall.

Southern California, south of Monterey Bay and of the lower end of the Sierras, might possibly be set aside as a fourth avian section; it has characteristics which none of the others have, being close to the arid deserts of Arizona, Texas and New Mexico, but it seems to be less distinct than any of the three I have mentioned, and apparently an intermediate ground for the birds of all, thus showing a mixed bird life. No birds are more interesting to work with and to watch than the Junco; the trim little plumage, sprightly and confiding air, the neat nests and dainty eggs all have a charm. California has, as far as I am able to ascertain, five species of this genus recorded within its limits,—three resident and breeding and two casual stragglers.

The most abundant and most widely distributed form is *Junco hyemalis thurberi* ANTHONY (1). This form differs from *oregonus* in having (2) "the sides paler and less extensively pinkish; dorsal patch paler and more sharply defined." The description of the type is as follows: (3)."Adult male. (Type No. 3072; Coll., A. W. Anthony, Wilson's Peak, Cal., May 24, 1890; E. C. Thurber, collector.) Head and neck all round slaty-black, sharply defined against the white breast and pale chestnut dorsal patch; lower parts and under tail coverts pure white; sides pale pinkish, grayish on flanks; wings and tail blackish, former with slightly hoary edgings of the primaries; three lateral retrices white, the third with inner web broadly blackish; bill and feet flesh color."

This is the common junco of California and ranges apparently throughout the Sierras and their tributary spurs from San Diego county on the south to Mt. Lassen on the north; it undoubtedly reaches farther north still but I have no record at the present writing of it so doing. During the summer juncos may be found up as high as 10,000 feet in the Sierras, but not as a rule lower than 3,000 feet, breeding. The breeding dates vary with the altitude and eggs may be found at 4,000 feet in May and as late as July 15 fresh eggs have been taken at 9,000 feet altitude. In the southern Sierras the latest recorded set was taken on June 12 on Mt. Wilson (4). Three or four eggs are the usual number in a set and rarely five. The nest is practically the same as that of other species of the genus, placed on the ground, though there are cases on record of nests being placed in trees and in deserted woodpeckers' holes. In the fall the birds congregate in flocks and move westward, through the foothill regions into the valleys. Some winter in the mountain valleys at varying altitudes, while large numbers work down into the valley region of Central California. Thurber's Junco is a common resident in the Laguna Mts. of Lower California.

Junco hyemalis oregonus is found in the typical form in Oregon during the summer and may possibly extend southward into the California Coast Range, but the most of the juncos breeding in the northern part of California and in the Coast Range north of San Francisco Bay are intermediate between *oregonus* and *thurberi*. These birds move southward in winter and may be found in

large numbers in the rolling country about San Francisco Bay and to the northward.

The type locality of *Junco hyemalis pinosus* is Monterey, California, and here may be noted a peculiarity of the coast region from San Francisco southward through Santa Cruz and Monterey. This region has some birds of practically the same character as are found in the Sierras,—*Junco*, *Oreortyx*, *Turdus aonalaschkæ*, and while in the Sierra Nevadas these birds all seek high altitudes to breed, on the coast they are found breeding from sea level to mountain-top. The juncos of this region were separated by Mr. L. M. Loomis and carry very striking characters, the most conspicuous being the bright rufous or reddish dorsal patch which is much more pronounced than in either *oregonus* or *thurberi*. These juncos are very common in the vicinity of Monterey during summer and during the breeding season are the only ones found there, but as soon as the young are fledged the birds wander. Mr. D. A. Cohen has taken typical *pinosus* at Alameda during the late fall and winter, while Mr. Emerson took a large series of juncos at Monterey and found more of them to be intermediate between *oregonus* and *thurberi*, than *pinosus*. This may be accounted for by the fact that they were taken at the close of the breeding season. The Point Pinos Junco begins breeding early and fully fledged young have been taken May 25 and undoubtedly the majority of the birds were on the move and mingling with the first of the juncos from counties north of the Bay. The nest and eggs of the Pt. Pinos Junco apparently do not differ from those of Thurber's Junco.

The Slate-colored Junco (*Junco hyemalis*) is frequently taken in California. One is recorded from Battle Creek, 1898, and two from Saint Helena, 1899, McGregor; from Los Angeles Co. (5); San Diego Co., 1884 (6); Gridley, Butte Co., (7); Haywards, 1880 Emerson (8); Amador Co., Kaeding, 1895. These were all taken in winter I believe. The only record of the occurrence of *Junco caniceps* in California which I can find is the single specimen, a female, taken by Mr. W. B. Judson near Pasadena, on Oct. 26, 1894.

1. Zoe. 1, p. 238. Issued Nov. 13, 1890. **2.** Ibid. **3.** Zoe. 1, p. 239, Nov. 13, 1890. **4.** Grinnell's Birds of the Pac. Slope of Los Angeles Co., p. 28. **5.** Ibid. **6.** Belding, Land Birds of the Pacific District, p. 159. **7.** Ibid. **8.** Ibid.

MR. JOHN M. WILLARD of Oakland returned on July 27 after an eight weeks' outing and collecting trip in Lassen County at 5,000 feet elevation. Yellow, Aububon's and Macgillivray's Warblers were the only ones seen. On June 19 several nests of the Western Martin were found, but no eggs had been laid and the birds deserted. On June 20 a lone nest was investigated and contained three half-grown young and two addled eggs. Other nests were seen but could not be reached. Two broods of the White-cheeked Goose were observed on Eagle Lake, near which place the farmers report them as nesting plentifully in favorable years. Mr. Willard secured many interesting skins, the region being prolific in woodpeckers.

H. R. TAYLOR of Alameda reports the taking of a nest and five fresh eggs of the Californian Towhee at Pescadero, Cal., on July 8, both the size of the set and late date being unusual, while Wm. H. Kobbe of Ft. Mason, San Francisco, records a set of six eggs of the House Finch taken from a nest ten feet up in a dragon tree. The nest and eggs were as usual, aside from the size of the set. Evidently a prolific year with the birds!

RICHARD C. MCGREGOR of Palo Alto will accompany the U. S. Coast and Geodetic Survey steamer *Pathfinder* on a sounding expedition to the Hawaiian Islands as official photographer. The steamer leaves San Francisco in September and will return in the spring, going thence to Alaska.

ON a recent hunting trip into the mountains of Monterey county Messrs. R. H. Beck and F. H. Holmes of Berryessa invaded the home of the Black Swift (*Cypseloides niger*), several specimens being secured. The swifts were frequenting oak-covered hillsides.